

Response to Final Office Action mailed May 31, 2006

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-6 (Cancelled)

7. (Currently Amended) ~~A~~In a computer system including a host computer and a storage system which has a first volume for storing data from the host computer and a second volume, and a storage control unit for controlling data transfer from the first volume to the second volume, a data protection apparatus coupled to the host computer and the storage system, for protecting data in a storage volume in a computer system, with said computer system comprising said storage volume assigned for storing data, a replicated volume assigned for storing data duplicated from said storage volume, and a storage control unit for controlling data transfer from said storage volume to said replicated volume, wherein said data protection apparatus comprises comprising:

an event detection unit for detecting an event occurrence; and

a replication stopping unit for instructing said storage control unit to stop data transfer from said ~~first~~ storage volume to said ~~second~~ replicated volume, when said event detection unit detects an event;

~~said computer system further comprising a computer for reading and writing data from and to said storage volume;~~

an illegal intrusion detection unit for detecting an illegal intrusion into said ~~host~~ computer;

wherein said event detection unit receives a detection of the illegal intrusion from said illegal intrusion detection unit; and

when said event detection unit receives the detection of the illegal intrusion, said replication stopping unit instructs said storage control unit to stop data transfer from said ~~first~~ storage volume to said ~~second~~ replicated volume.

8. (Cancelled)

9. (Currently Amended) A data protection apparatus in a computer system according to Claim 7, wherein:

said computer system further includes comprises a computer virus detection unit for detecting a computer virus in said storage system;

said event detection unit receives the detection of the computer virus from said computer virus detection unit; and

when said event detection unit receives the detection of the computer virus, said replication stopping unit instructs said storage control unit to stop data transfer from said first storage volume to said second replicated volume.

10. (Currently Amended) A data protection method for protecting data in a computer system including a host computer and a storage system which has a first volume for storing data from the host computer and a second volume, storage volume in a computer system, with said computer system comprising said storage volume assigned for storing data, a computer for reading and writing data from and to said storage volume, a replicated volume assigned for storing data duplicated from said storage volume, and a storage control unit for controlling data transfer from said storage first volume to said second replicated volume, wherein said data protection method comprises steps of:

detecting an intrusion into said host computer; and

instructing said storage control unit to stop data transfer from said first storage volume to said second replicated volume, when said intrusion is detected.

11. (Currently Amended) A program embodied on a storage medium that can be read by an information processing apparatus for making the information processing apparatus perform data protection of a storage volume in a computer system including a host computer and a storage system which has a first volume for storing data from the host computer and a

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~~second volume, with said computer system comprising said storage volume assigned for storing data, a computer for reading and writing data from and to said storage volume, a replicated volume assigned for storing data duplicated from said storage volume, and a storage control unit for controlling data transfer from said storage first volume to said second replicated volume, wherein said program makes said information processing apparatus perform processes of:~~

detecting that an intrusion into the host computer has occurred; and

instructing said storage control unit to stop data transfer from said first storage volume to said second replicated volume, when said intrusion is detected.

12-13 (Cancelled)

14. (Currently Amended) In A a computer system including a host computer and a storage system which has a first volume for storing data from the host computer and a second volume, and a storage control unit for controlling data transfer from the first volume to the second volume, comprising a storage volume assigned for storing data, a replicated volume assigned for storing data duplicated from said storage volume, a storage control unit for controlling data transfer from said storage volume to said replicated volume, and a data protection apparatus coupled to the host computer and the storage apparatus for protecting data in said storage volume, wherein comprising:

said data protection apparatus comprises:

an event detection unit for detecting an event occurrence; and

a replication stopping unit for instructing said storage control unit to stop data transfer from said first storage volume to said second replicated volume, when said event detection unit detects an event;

wherein said computer system further comprises an alteration detection unit that reads given data in said plurality of replicated volumes to detect respective differences between the given data; and

the event detected by said event detection unit is a detection result of the differences between the given data, with said detection result being received from said alteration detection unit.

15. (Currently Amended) A data protection apparatus in a computer system according to Claim 14, wherein:

write data to said first storage-volume is transferred by said storage control unit to said second replicated volume with a delay of a given time.

16. (Currently Amended) A data protection apparatus in a computer system according to Claim 14, wherein:

as said replicated second volume, a plurality of second replicated-volumes are provided; and

said storage control unit switches a transfer destination of write data of said storage first volume, at given time intervals among said plurality of replicated second volumes.

17. (Currently Amended) A data protection apparatus in a computer system according to Claim 16, wherein:

data transferred to said plurality of second replicated volumes is further transferred to another plurality of second replicated volumes.

18. (Cancelled)

19. (Currently Amended) A data protection apparatus in a computer system according to Claim 14, wherein:

~~said computer system further comprises a computer for reading and writing data from and to said storage volume;~~

said storage control unit further controls communication between said host computer and said first storage volume; and

said data protection apparatus instructs said storage controller to stop communication between said host computer and said first storage when said event detection unit detects said event.

20. (Cancelled)